

(E)

John M. Guynn

From: Randy Smith [rsmith@earthshell.com]
Sent: Saturday, September 17, 2005 6:03 PM
To: John M. Guynn
Subject: FW: Re-Revised Wrap plan

Attachments: Microsoft Excel 2.x



EarthShell
DuPont Test Plan wr

John, here is a test plan. Note that the Papermatch grades were developed with A. Schulman and us as Eastar Bio resin as a base and talc, caco3 and tio2 fillers.

RAS

-----Original Message-----

From: Kishan Khemani
Sent: Saturday, June 23, 2001 5:52 PM
To: Jeffrey L McGlaughlin (E-mail); Jennifer M Schneider (E-mail); John Kelly (E-mail); John Nevling; Ken Atwood (E-mail); Randy Smith; Roger Byrd (E-mail); Donna Balinkie
Cc: Kishan Khemani; Lori Bowles; Simon Hodson
Subject: Re-Revised Wrap plan

Based on the learning's gleaned from previous wrap trials and because we feel that we are very close to a final product (even in the monolayer wrap that was printed, and the outcome of the Next Gen run#2), we would like to suggest that we conduct three experiments on July 5th-6th at Chestnut Run. I have modified the plan template to reflect this. Also note specifically the notes 1 and 2 in the test plan. Based upon our observations during the trial we will make adjustments in the formula and repeat the three structures. Please review ASAP and give me your comments. Thank you.

Kishan Khemani
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-----Original Message-----

From: Jennifer M Schneider [mailto:Jennifer.M.Schneider@usa.dupont.com]
Sent: Friday, June 22, 2001 2:34 PM
To: Donna Balinkie; John Nevling; John L. Kelley; Kishan Khemani; Randy Smith; Kenneth B Atwood; Jeffrey L McGlaughlin; Roger N Byrd
Subject: Revised Wrap plan

This is the revised plan
(See attached file: EarthShell DuPont Test Plan wraps.xls)

disregard previous sent by mistake

EARTHSHELL-DUPONT TEST PLAN

6/21/01

Test Title	Wraps Coextrusion Trials								
Date Planned	06/22/01	Dates of Test	7/5 and 7/6	Location/Facility	Chestnut Run Bldg 712				
Overall Purpose of Test	Produce a film that would be acceptable to take to Carl's Jr.								
Specific Goals of Test	Determine processing conditions for each structure								
	Film thickness: Target is 1.5 mil nominal								
	If time permits, we will also make samples of thinner film at 0.75 mil nominal thickness								
Type of Equipment Needed	Coextrusion cast film line								
Materials Needed	Description	Amount	Source	Resp.	By When	Verified			
	Biomax	3,000 lbs	DuPont	JMS	2-Jul	J. Kelley			
	Papermatch T3818	2,000 lbs	Earthshell	R.Smith	2-Jul	J. Kelley			
	Papermatch T5346	1,000 lbs	Earthshell	R.Smith	2-Jul	J. Kelley			
	Papermatch T4338	1,000 lbs	Earthshell	R.Smith	2-Jul	J. Kelley			
	Eastar Bio	3,000 lbs	Earthshell	R.Smith	2-Jul	J. Kelley			
Test Coverage	Who	Role in Test		Test Safety Information					
	J. Kelley	Process knowledge consultant		Safety glasses and safety shoes must be worn					
	K. Khemani	Earthshell Technical							
R. Byrd	Dupont Technical								
Samples Required	Frequency, amount, labels, etc.	500 feet of each film produced							
Facilities Plan	Who Schedules Facility	Is it Scheduled	Specific Time Scheduled	Arrive Time	Start Time	Must End Time	Facilities Contact	Facilities Address	Facilities Phone #
	JMS	Yes	Yes	7 am	7 am	5pm	Jim Smith	Chestnut run 712	(302)9993186
	Description of Equipment		Coextrusion cast line capable of 20 in wide film with 4 extruders						
	Cautions & Vendor Sensitivities								

PRE-TEST PLANNING SHEET

6/21/01

Test Title	Wraps Coextrusion Trials			
Date Planned	06/22/01	Dates of Test	7/5 and 7/6	Location/Facility
Overall Purpose of Test	Produce a film that would be acceptable to take to Carls Jr.			
Pre-Test Preparation Plan	Task	Who	By When	Comments
	Inspection of Materials	J. Kelley	2-Jul	Make sure that if material has been sent to warehouse that it is called back for 10:00 am delivery on July 2
	Test Preps to Vendor	JMS	26-Jun	
	Test Plan to Vendor	JMS	26-Jun	
Detailed Description of Preparations Needed at Facility Before Test Begins				
<p>Must have:</p> <ol style="list-style-type: none"> 1. Matte chill roll 2. Shear rate vs viscosity curves 3. 5 dryers 4. John Kelley present when dryers loaded on July 3 5. John Kelley and Kishan present at 7 am to supervise blending and loading of dryers 6. Nip roll in place 				

DETAILED TEST PLANNING SHEET

6/21/01

Test Title	Wraps Coextrusion Trials											
Date Planned	06/22/01	Dates of Test	7/5 and 7/6	Location/Facility								
Overall Purpose of Test	Produce a film that would be acceptable to take to Carls Jr.											
Detailed Description of Test Itself:												
Describe Task Order	<p>(1) 30% A-Layer: 50% Eastar Bio/T-4338 + 30% Biomax 4026 + 20% Eastar Bio 40% B-Layer: 77% Biomax/T-3818 + 23% Eastar Bio 30% C-Layer: 45% Eastar Bio/T-5346 + 25% Biomax 4026 + 30% Eastar Bio</p> <p>(2) 50% A-Layer: 50% Eastar Bio/T-4338 + 25% Biomax 4026 + 25% Eastar Bio 50% B-Layer: 77% Biomax/T-3818 + 23% Eastar Bio</p> <p>(3) 50% A-Layer: 50% Eastar Bio/T-5346 + 25% Biomax 4026 + 25% Eastar Bio 50% B-Layer: 77% Biomax/T-3818 + 23% Eastar Bio</p> <p>NOTES: 1. If tear strength is very good, increase the %filler by 5% in the B-layers only. 2. If tear strength is poor, increase the %EastarBio by 5% in the A and C layers.</p>											
Outputs to be	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px; text-align: center;">Start with #1 ABC</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px; text-align: center;">Determine processing temperatures (spend no more than 1 hour)</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> </table>				Start with #1 ABC				Determine processing temperatures (spend no more than 1 hour)			
Start with #1 ABC												
Determine processing temperatures (spend no more than 1 hour)												

DETAILED TEST PLANNING SHEET

6/21/01

Details of Each Task: Specify inputs and desired length of time expected to complete, measurement taken.	collect 500 feet (10 minutes)			
	Test elmendorf tear in 713 lab (30 minutes)			
	Change feedblock (1 hour)			
	Run #2 AB (30 minutes to transition)			
	Determine processing temperatures (spend no more than 1 hour)			
	collect 500 feet (10 minutes)			
	Test elmendorf tear in 713 lab			
	Run #3 AB (30 minutes to transition)			
	Determine processing temperatures (spend no more than 1 hour)			
	Repeat runs 1-3, if necessary, as per the above notes 1 and 2.			
Other Test Information				
Statistical Design of Test				
Work Planned vs. Facilities Capability	Total Time to Do All Planned Tasks	Total Time Available on Facility	Is There a 25% Time Safety Factor	Does the Test Plan Need to Be Modified?
	8 hours	20 hours	Yes, We can run overtime if we need to	See Notes 1 and 2